ABSTRACT OF THE DISCLOSURE

~~Process and device for~~ depositing, by electron cyclotron resonance plasma, a web of carbon nanofibres or nanotubes, on a substrate without a catalyst, by injection of a microwave power into a deposition chamber comprising a magnetic structure with a highly unbalanced magnetic mirror and at least one electron cyclotron resonance zone within the interior of the said deposition chamber itself and opposite the said substrate, in which, under a pressure of less than 10^{-4} mbar, the ionisation and / or dissociation of a gas containing carbon is induced in the said magnetic mirror in the centre of the deposition chamber, thus producing species that deposit on the said substrate, which is heated.

In addition, the inventions concerns a film, which may be on a substrate, formed from a web or a network of interconnected carbon nanofibres or nanotubes, like a spider's web, the said film being exempt of a catalyst and a structure of several layers - a multi-layer structure - comprising at least two layers of a web of carbon nanofibres or nanotubes, as well as filters, electron accelerating or decelerating nanogrids and flat screens comprising such films or structures.

~~No figure~~.